

Claims

1. A latent-heat storage type adsorbent
composition for canisters comprising an adsorbent and a
5 heat-storage material;

the adsorbent being capable of adsorbing fuel
vapor,

the heat-storage material comprising a
microencapsulated phase-change material, the phase-change
10 material absorbing or releasing latent heat in response to
temperature change.

2. A latent-heat storage type adsorbent
composition for canisters according to Claim 1, wherein
the adsorbent is activated carbon, activated alumina or a
15 mixture thereof.

3. A latent-heat storage type adsorbent
composition for canisters according to Claim 1 or 2,
wherein the average particle diameter of the heat-storage
material is about 1/1000 to about 1/10 of that of the
20 adsorbent.

4. A latent-heat storage type adsorbent
composition for canisters according to Claim 1, 2 or 3,
wherein the average particle diameter of the adsorbent is
about 1 μm to about 10 mm.

25 5. A latent-heat storage type adsorbent

composition for canisters according to any one of Claims 1 to 4, wherein the average particle diameter of the heat-storage material is about 0.1 to about 500 μm .

6. A latent-heat storage type adsorbent
5 composition for canisters according to any one of Claims 1 to 5, wherein the heat-storage material is adhered to and/or deposited on the surface of the adsorbent.

7. A latent-heat storage type adsorbent
composition for canisters which is in a form of a molded
10 article comprising a latent-heat storage type adsorbent composition for canisters according to any one of Claims 1 to 6 and a binder.

8. A latent-heat storage type adsorbent
composition for canisters according to Claim 7, wherein
15 the molded article is in at least one shape selected from the group consisting of pellet, disc and block.

9. A method for producing a latent-heat storage
type adsorbent composition for canisters according to any
one of Claims 1 to 6 wherein the heat-storage material is
20 adhered to and/or deposited on the surface of the
adsorbent.

10. A method for producing a latent-heat storage
type adsorbent composition for canisters according to any
one of Claims 1 to 6 wherein the heat-storage material is
25 electrostatically adhered to and/or deposited on the

surface of the adsorbent.

11. A method for producing a latent-heat storage type adsorbent composition for canisters according to any one of Claims 1 to 6 wherein the heat-storage material and
5 the adsorbent are uniformly mixed.

12. A method for producing a latent-heat storage type adsorbent composition for canisters according to any one of Claims 1 to 6 wherein a slurry obtained by suspending the heat-storage material in a liquid medium is
10 mixed with the adsorbent, and the mixture is then dried.

13. A method for producing a latent-heat storage type adsorbent composition for canisters comprising:

suspending a heat-storage material containing a microencapsulated phase-change material in a liquid medium
15 to give a slurry, the phase-change material capable of absorbing or releasing latent heat in response to temperature change, and

spraying a liquid mixture containing the slurry and, if necessary, a binder, on the surface of the fuel
20 vapor adsorbent.

14. A method for producing a latent-heat storage type adsorbent composition for canisters comprising:

molding a heat-storage material containing a microencapsulated phase-change material capable of
25 absorbing or releasing latent heat in response to

temperature change to produce a molded article, and
uniformly mixing a fuel vapor adsorbent and the
molded article.

15. A method for producing a latent-heat storage
5 type adsorbent composition for canisters comprising:

uniformly mixing a fuel vapor adsorbent, a
powdery heat storage material containing a
microencapsulated phase-change material capable of
absorbing or releasing latent heat in response to
10 temperature change or a slurry suspending the powdery heat
storage material in the liquid medium, a binder and water,
and

molding the resultant mixture to form a desired
shape.

15 16. A latent-heat storage type adsorbent
composition for canisters obtained by the method according
to any one of Claims 13 to 15.

17. A canister for preventing fuel vaporization
in which the latent-heat storage type adsorbent
20 composition of any one of Claims 1 to 8 and 16 is placed
in a canister case.